

Optical Signal Processing Apparatus Based on Movable Tilted Reflection Mirror

Abstract

5 An optical signal processing apparatus based on movable tilted reflection mirror comprises a movable tilted reflection mirror unit and a micro actuator. The micro actuator is used to control and actuate the relative location and position of the movable reflection mirror unit with respect to the optical transmission path of light signals. To control the light intensity of the incoming optical signals being reflected toward output ports and the
10 light intensity of the optical signals transmitted forward to output ports, the light intensity is adjusted in terms of the location of the movable tilted reflection mirror unit which is determined by electrically controlling said micro-actuator. The movable tilted reflection mirror unit comprises at least one reflective mirror plane, which can be a flat mirror plane, a shaped mirror
15 plane, or a curved mirror plane. A plurality of such optical processing apparatuses can be integrated to form an optical signal processing apparatus with the function of variable optical attenuation, optical switching, optical multiplexing / demultiplexing, and optical add/drop